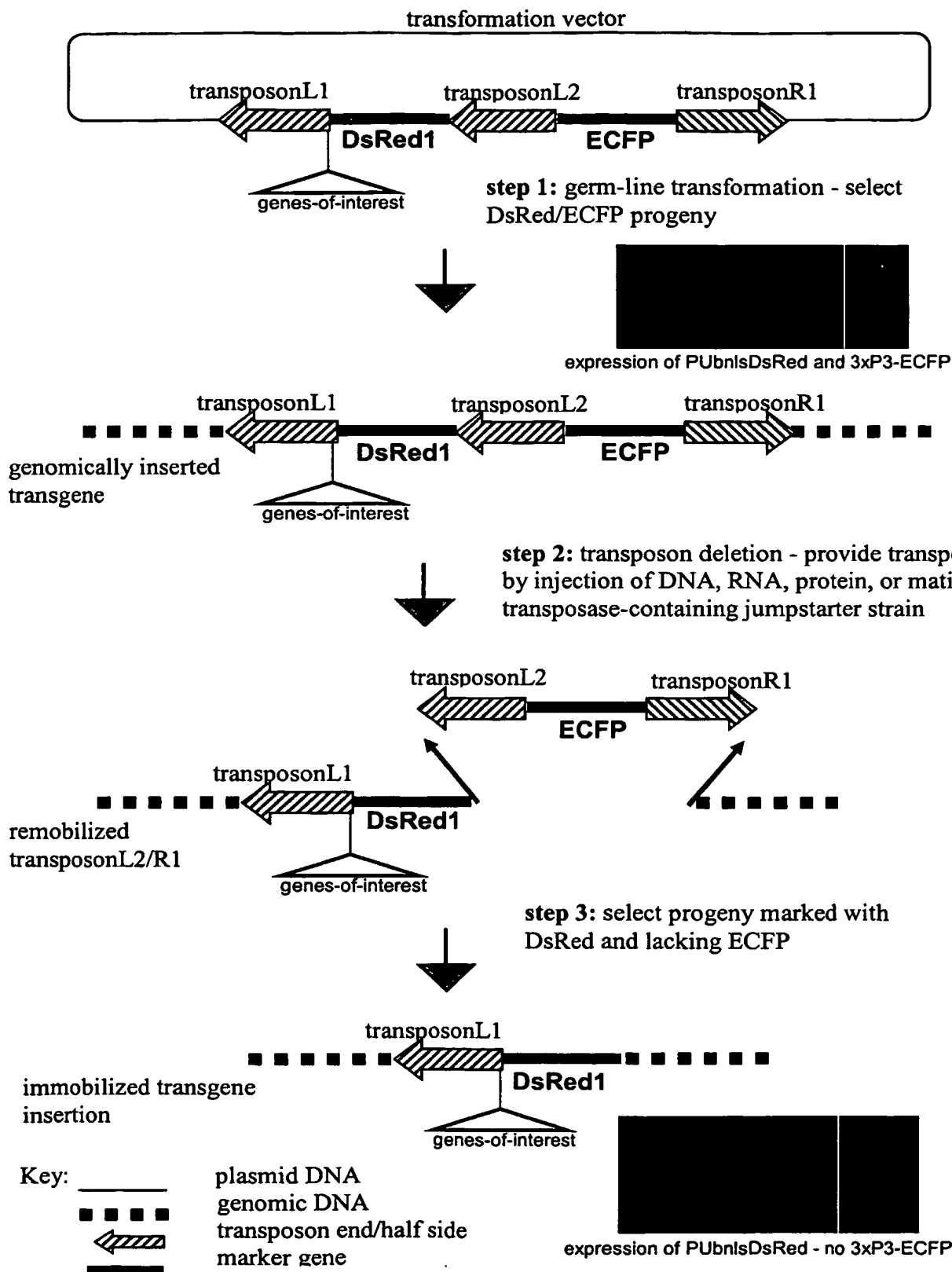
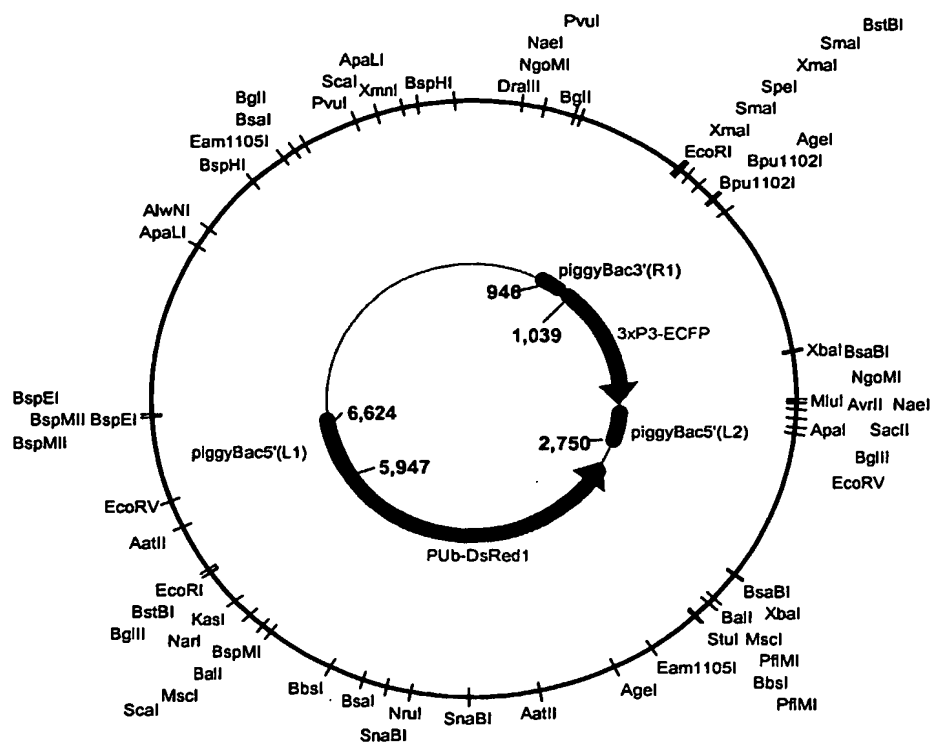


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**Figure 1: Protocol for integration and re-mobilization for stabilized vector creation.**

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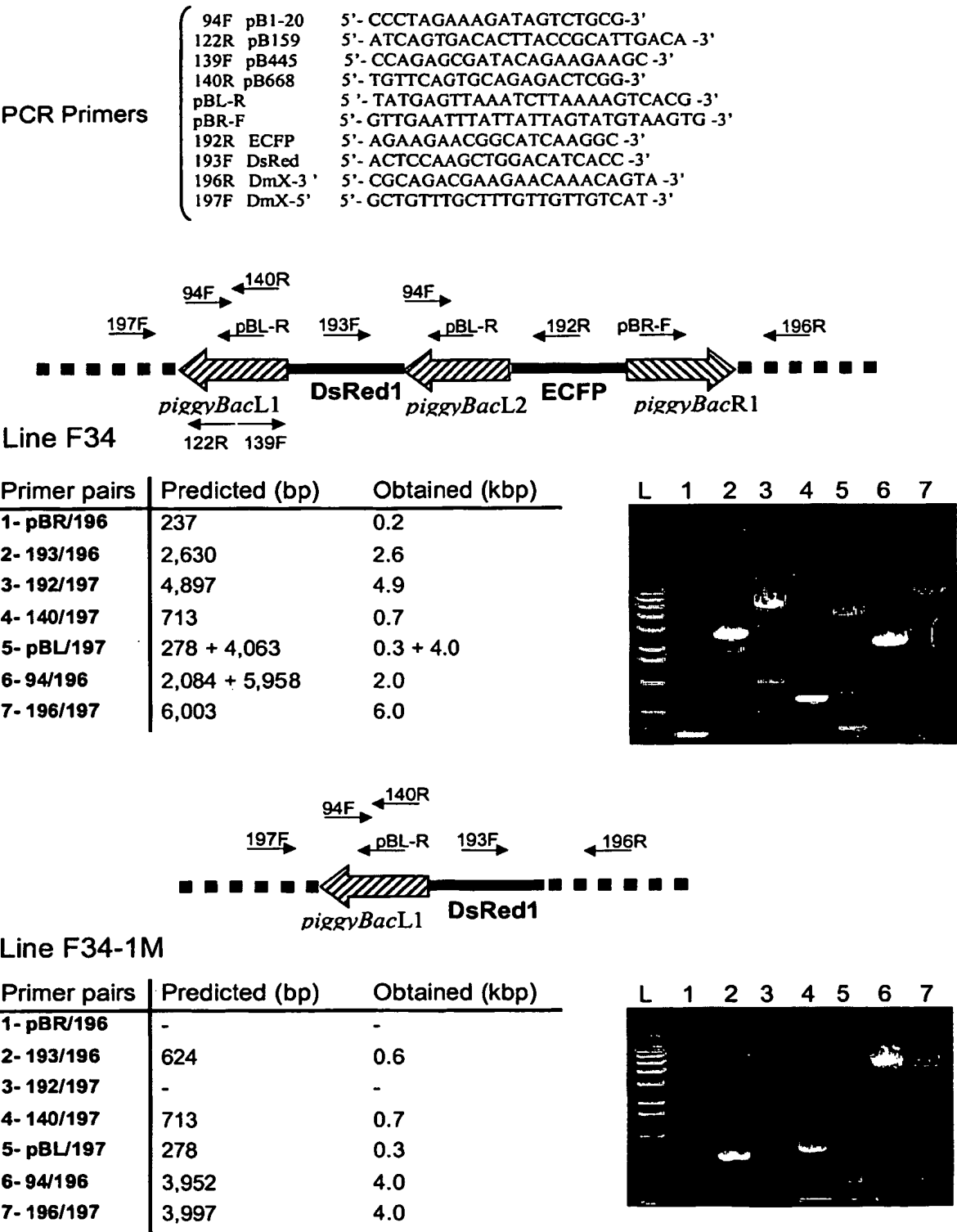


**Fig. 2.** Diagram of stabilization vector pBac{L1-PUBDsRed1-L2-3xP3-ECFP-R1}

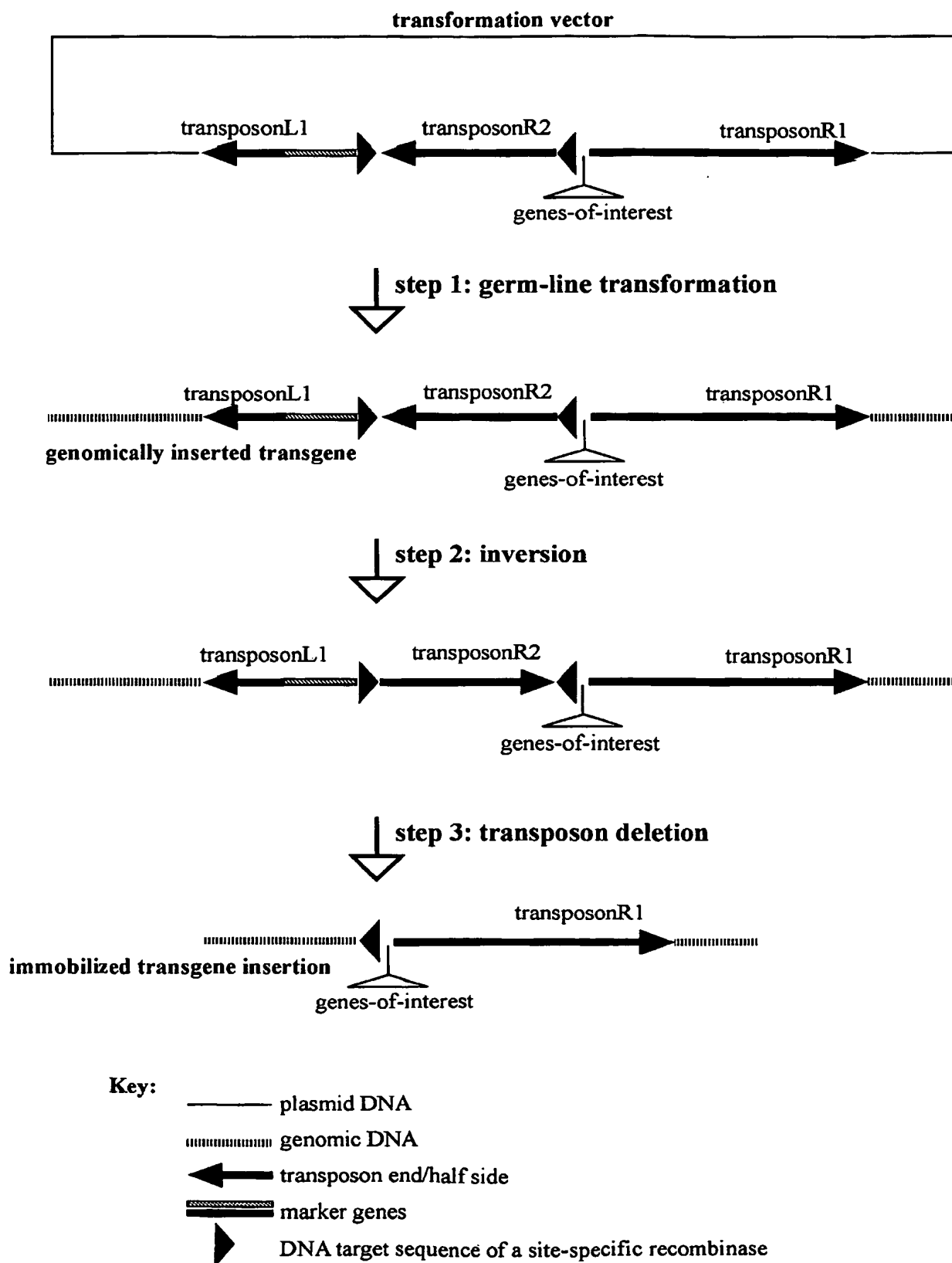
Plasmid size: 9.1 kb

Unique *KasI* cloning site

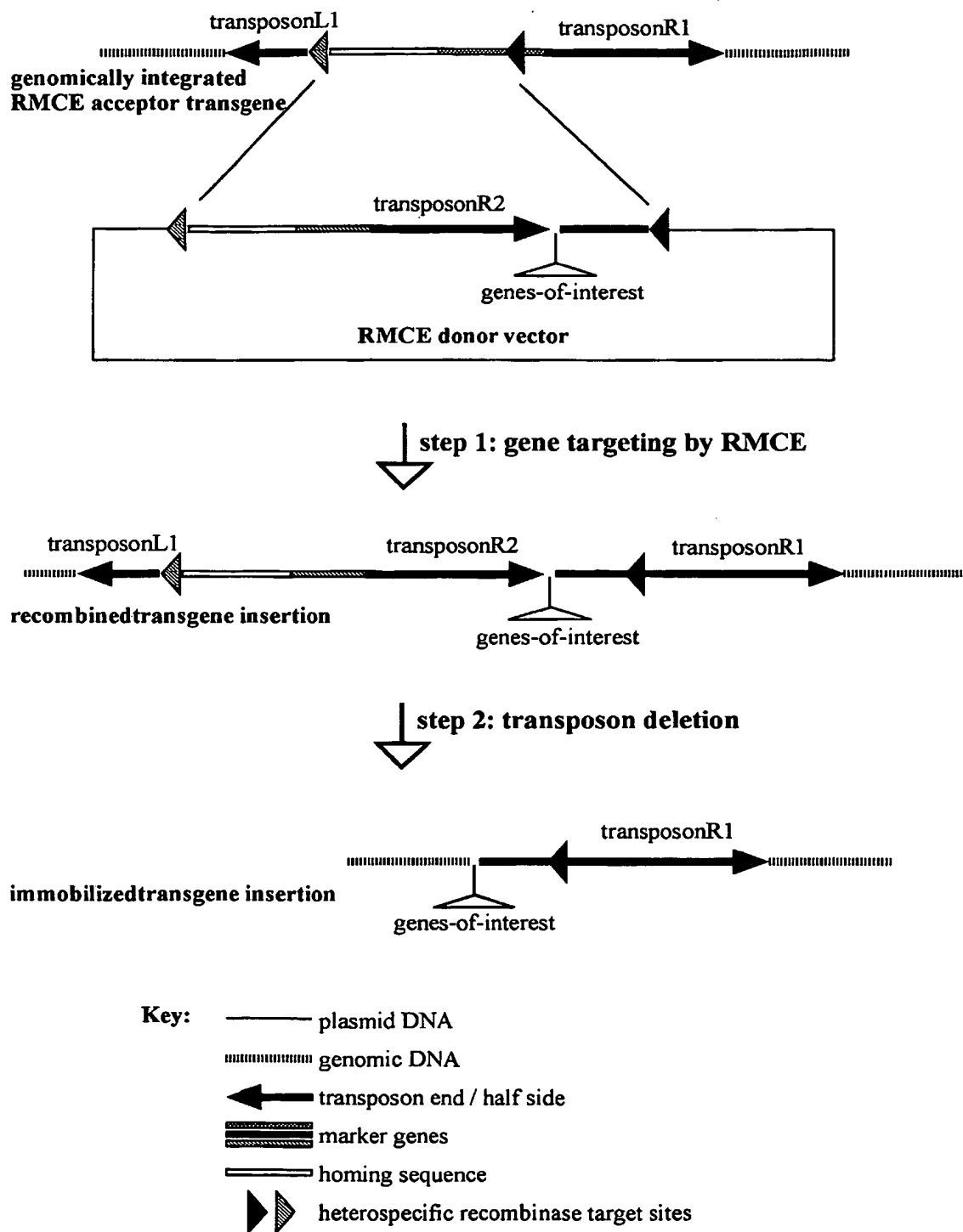
**Figure 3: PCR analysis and verification of pBac{L1-PUBDsRed1-L2-3xP3-ECFP-R1} vector integration in line F34 and L2-3xP3-ECFP-R1 remobilization in line F34-1M**



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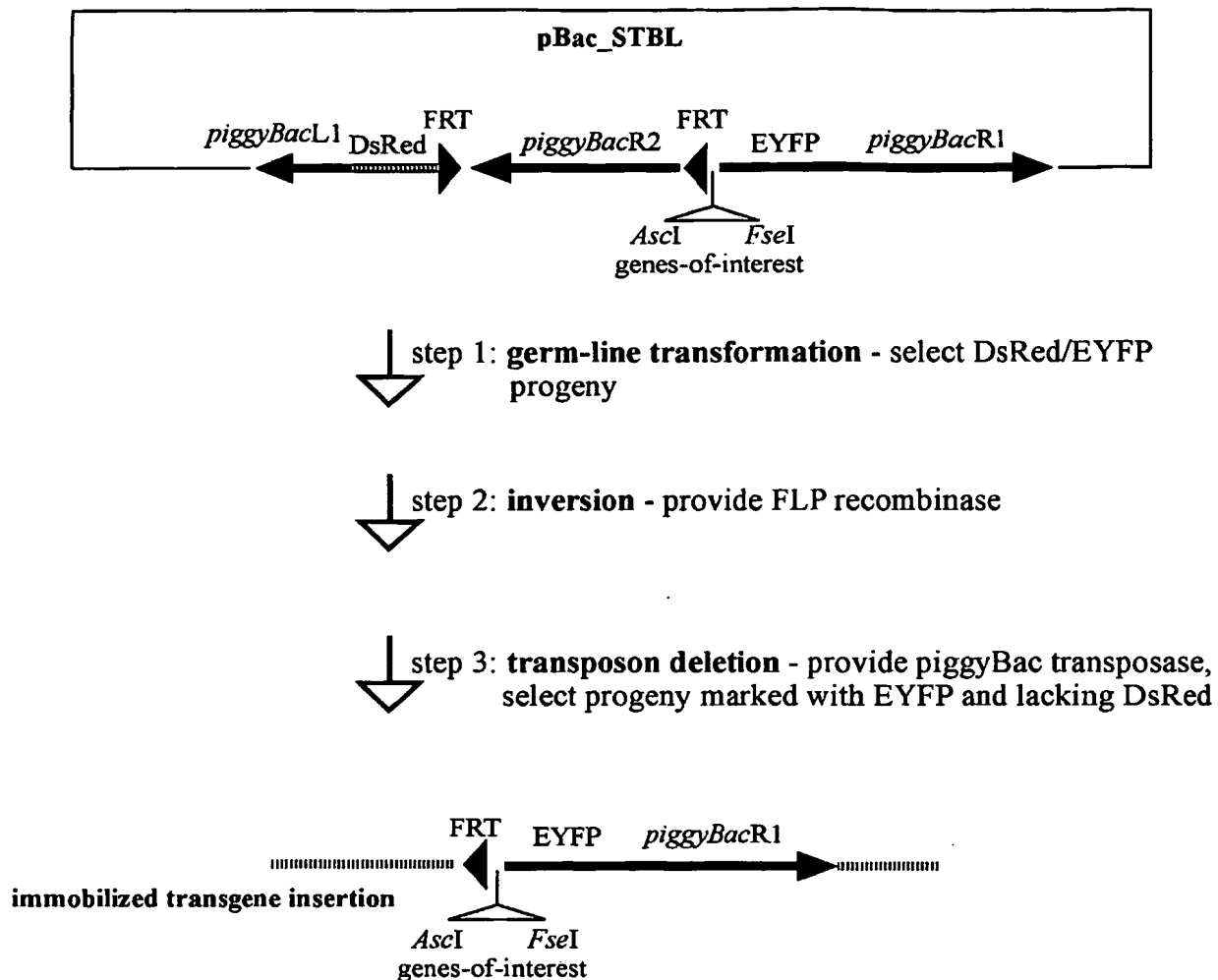
**Figure 4: Conditional excision competent transformation vectors**

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**Figure 5: RMCE with subsequent transposon deletion**

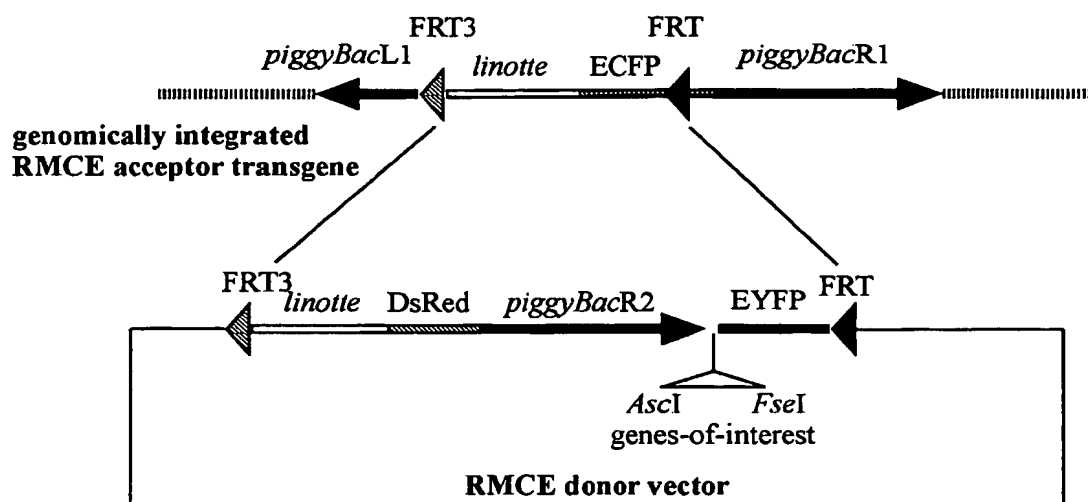
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**Fig 6: Embodiment: Stabilized vector creation with pBac\_STBL**  
(principle shown in Fig. 4)

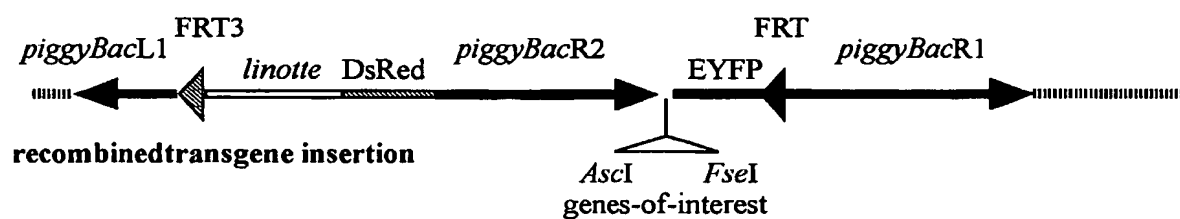


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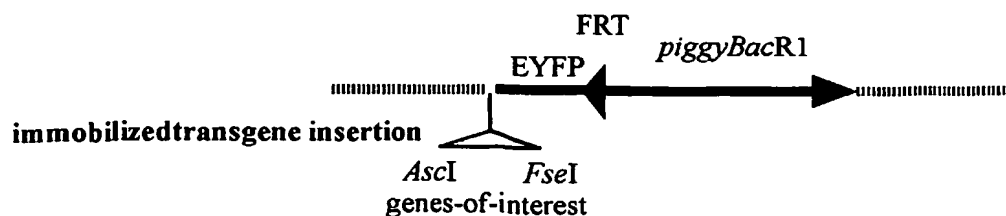
**Fig 7: Embodiment: Stabilized vector creation by RMCE**  
(principle shown in Fig. 5)



↓ **step 1: gene targeting / RMCE** - provide *Flp* recombinase,  
select progeny with EYFP and DsRed



↓ **step 2: transposon deletion** - provide piggyBac transposase,  
select progeny with EYFP and lacking DsRed



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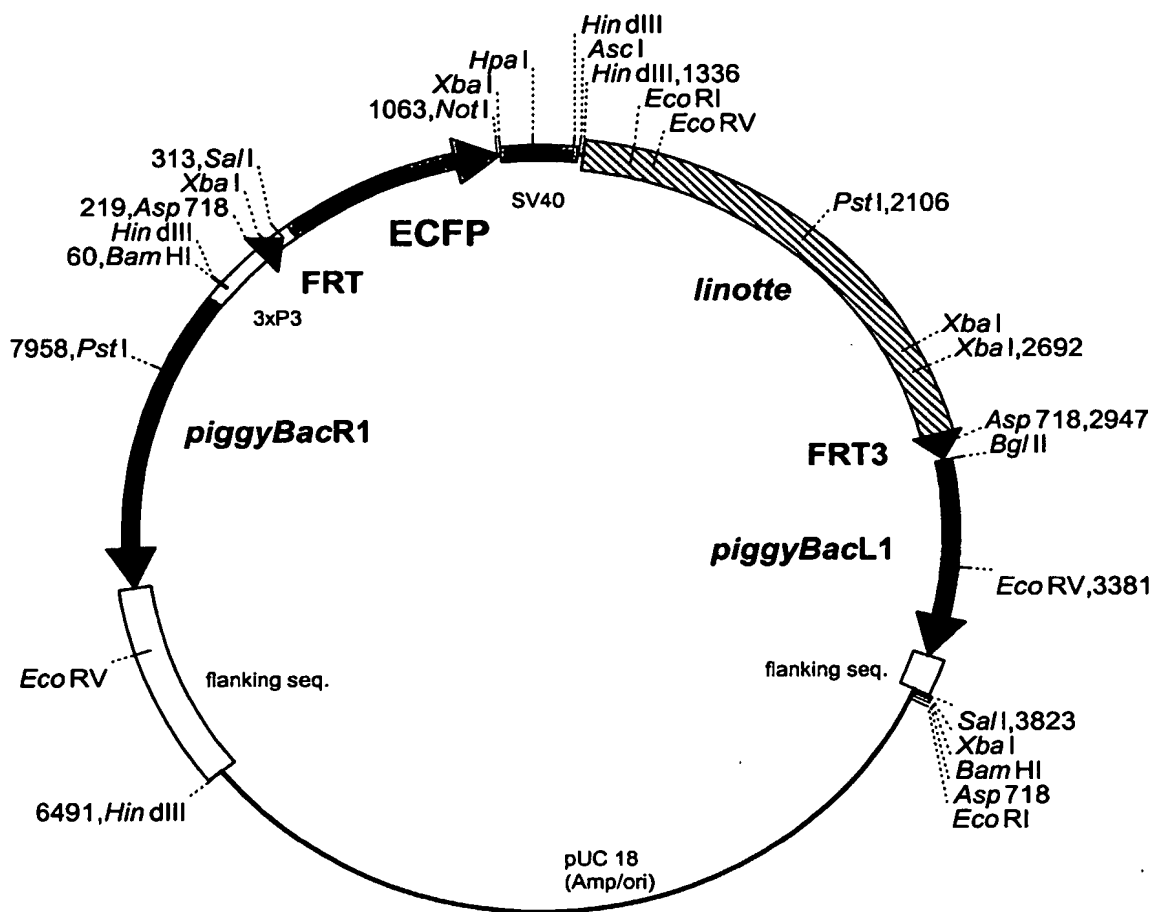


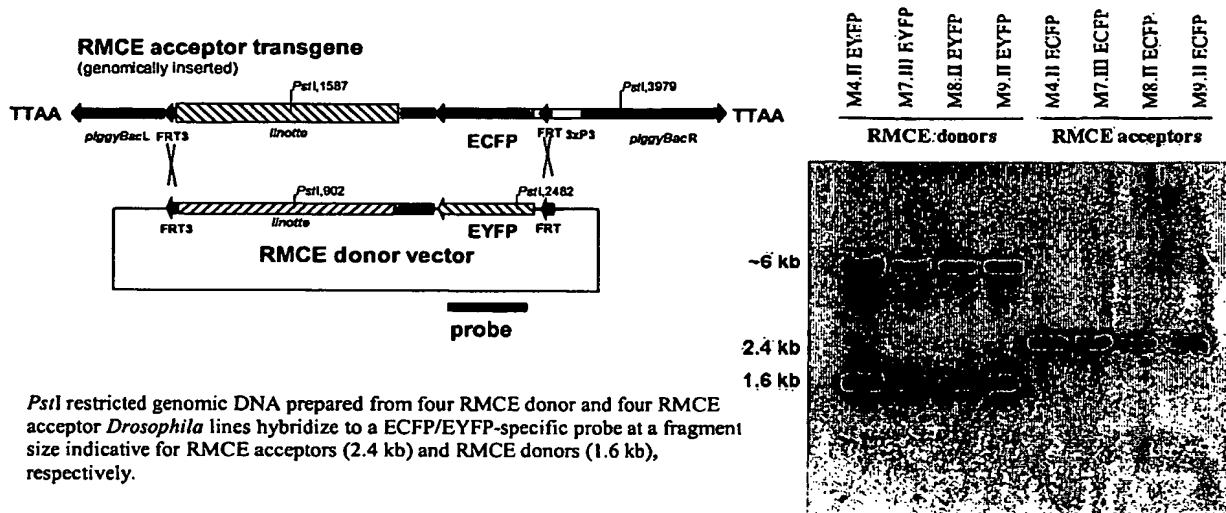
Figure.8: Diagram of RMCE acceptor vector

**pBac{3xP3-FRT-ECFP-linotte-FRT3}**

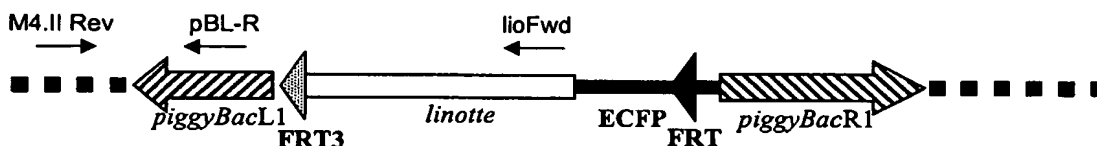
Plasmid size: 8.2 kb



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**Fig. 9: Molecular analysis of RMCE acceptor and RMCE donor transgenic lines and PCR analysis of transgene mobilization****a) Genomic integration of RMCE acceptor and RMCE donor can be discriminated by Southern Analysis****b) Transgene immobilization (as shown in Fig. 7) can be verified by PCR analysis**

PCR Primers	pBL-R	5' - TATGAGTTAAATCTTAAAAGTCACG - 3'
	M4.II Rev	5' - GGGCCACACGATTTATGGC - 3'
	lioFwd	5' - GTTTATTTTGGCAACATGAG - 3'

**genomically integrated RMCE acceptor (line M4.II ECFP):****immobilized transgene insertion (lines i#7, i#8):**

Line	Primer pairs	Predicted (bp)	Obtained (kbp)	L 1 2 L 3 4 5 6
1 - M4.II	pBL-R/M4.II Rev	577	0.6	
2 - M4.II	lioFwd/M4.II Rev	2,836	2.8	
3 - i#7	pBL-R/M4.II Rev	no PCR product	no PCR product	
4 - i#7	lioFwd/M4.II Rev	650	0.6	
5 - i#8	pBL-R/M4.II Rev	no PCR product	no PCR product	
6 - i#8	lioFwd/M4.II Rev	650	0.6	

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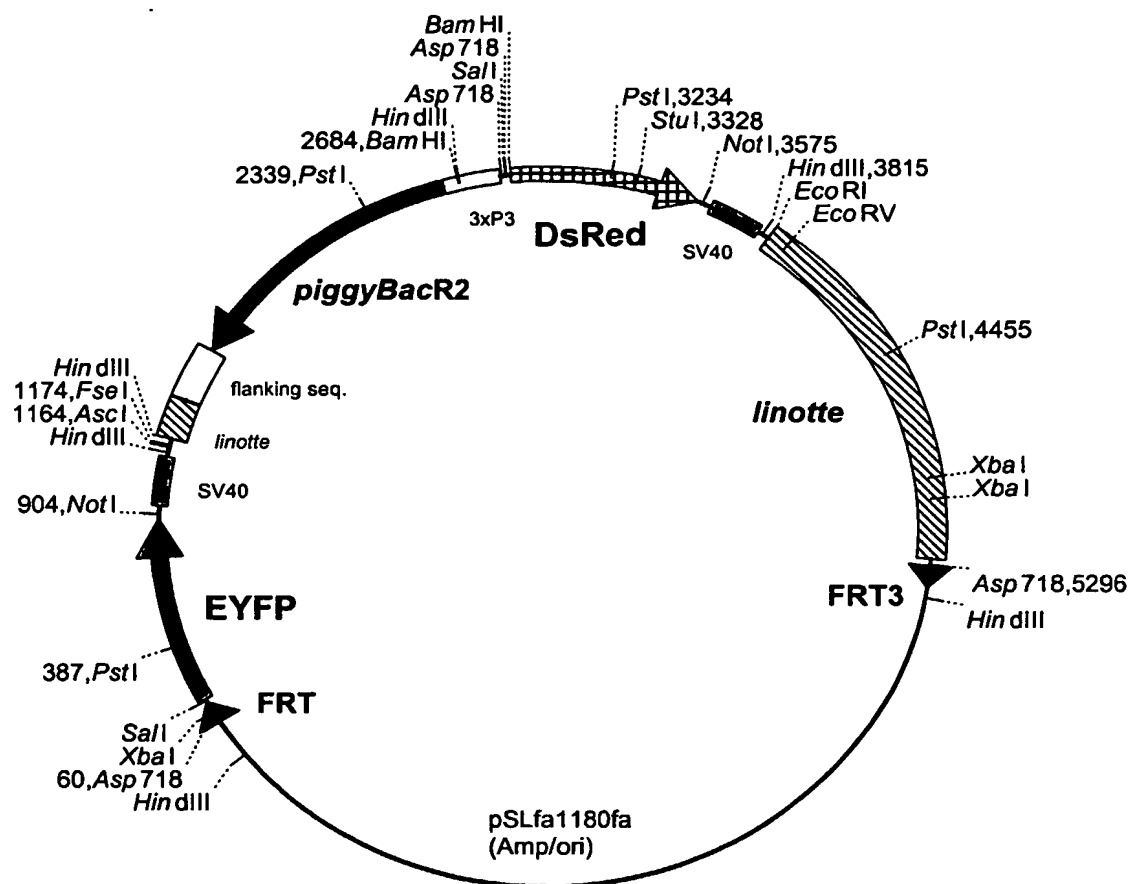


Figure 10: Diagram of final RMCE donor vector for transgene stabilization

**pSL-FRT-EYFP-pBacR2-3xP3-DsRed-linotte-FRT3**

Plasmid size: 8.6 kb

Unique cloning sites: *AscI*, *FseI*

Fig. 11 Approximate DNA sequence for the vector shown in Fig. 10

CTAAATTGTAAGCGTTAATATTTTGTAAATTCGCGTTAAATTTTGT  
AAATCAGCTCATTTTAAACCAATAGGCCGAAATCGGCAAAATCCCTTAT  
AAATCAAAAGAATAGACCGAGATAGGGTTGAGTGTGTTCCAGTTTGGAA  
CAAGAGTCCACTATTAAAGAACGTGGACTCCAACGTCAAAGGGCGAAAAA  
CCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCTAATCAAGT  
TTTTTGGGGTCGAGGTGCCGTAAAGCACTAAATCGGAACCTAAAGGGAG  
CCCCGATTTAGAGCTTGACGGGGAAAGCCGGCGAACGTGGCGAGAAAGG  
AAGGGAAGAAAGCGAAAGGAGCGGGCGCTAGGGCGCTGGCAAGTGTAGCG  
GTCACGCTGCGCGTAACCACCACACCCGCCGCGCTTAATGCGCCGCTACA  
GGGCGCGTCCCATTCGCCATTCAGGCTGCGCAACTGTTGGGAAGGGCGAT  
CGGTGCGGGCCTCTTCGCTATTACGCCAGCTGGCGAAAGGGGGATGTGCT  
GCAAGGCGATTAAAGTTGGGTAACGCCAGGGTTTTCCAGTCACGACGTTG  
TAAACGACGGCCAGTGAGCGCGCCTCGTTCATTACGTTTTTGAACCCG  
TGGAGGACGGGCAGACTCGCGGTGCAATGTGTTTTACAGCGTGATGGAG  
CAGATGAAGATGCTCGACACGCTGCAGAACACGCAGCTAGATTAACCCTA  
GAAAGATAATCATATTGTGACGTACGTAAAGATAATCATGCGTAAATTT  
GACGCATGTGTTTTATCGGTCTGTATATCGAGGTTTTATTTATTAATTTGA  
ATAGATATTAAGTTTTATTATATTTACACTTACATACTAATAATAAATTC  
AACAAACAATTTATTTATGTTTTATTTATTTATTAACAAAAAACAACAACT  
CAAAATTTCTTCTATAAAGTAACAAACCTTTTATCGAATTCCTGCAGCCC  
GGGGGATCCACTAGTTCTAGTGTTCACCAATGGTTAATTCGAGCTCGCC  
CGGGGATCTAATTCAATTAGAGACTAATTCAATTAGAGCTAATTCAATTA  
GGATCCAAGCTTATCGATTTCGAACCCCTCGACCGCCGGAGTATAAATAGA  
GGCGCTTCGTCTACGGAGCGACAATTCAATTCAAACAAGCAAAGTGAACA  
CGTCGCTAAGCGAAAGCTAAGCAAATAAACAAGCGCAGCTGAACAAGCTA  
AACAAATCGGGGTACCGCTAGAGTCGACGGTACGATCCACCGGTGCGCCACC  
ATGGTGAGCAAGGGCGAGGAGCTGTTACCGGGGTGGTGGCCATCCTGGT  
CGAGCTGGACGGCGACGTAAACGGCCACAAGTTTCAGCGTGTCCGGCGAGG  
GCGAGGGCGATGCCACCTACGGCAAGCTGACCCCTGAAGTTTATCTGCACC  
ACCGGCAAGCTGCCCCGTGCCCTGGCCACCCCTCGTGACCACCCCTGACCTG  
GGCGTGCAAGTCTTACCGCGCTACCCCGACCATGAAGCAGCAGCACT  
TCTTCAAGTCCCGCATGCCCGAAGGCTACGTCCAGGAGCGCACCATCTTC  
TTCAAGGACGACGGCAACTACAAGACCCGCGCCGAGGTGAAGTTGAGGGG  
CGACACCCCTGGTGAACCGCATCGAGCTGAAGGGCATCGACTTCAAGGAGG  
ACGGCAACATCCTGGGGCACAAGCTGGAGTACAATACTACATCAGCCACAAC  
GTCTATATCACCGCCGACAAGCAGAAGAACGGCATCAAGGCCAACTTCAA  
GATCCGCCACAACATCGAGGACGGCAGCGTGCAGCTCGCCGACCACTACC  
AGCAGAACACCCCCATCGGCGACGGCCCCGTGCTGCTGCCCCGACAACCAC  
TACCTGAGCACCCAGTCCGCCCTGAGCAAAGACCCCAACGAGAAGCGCGA  
TCACATGGTCTCTGCTGGAGTTCGTGACCGCCGCGGGATCACTCTCGGCA  
TGGACGAGCTGTACAAGTAAAGCGGCCGCGACTCTAGATCATAATCAGCC  
ATACCACATTTGTAGAGGTTTTACTTGCTTTAAAAAACCTCCACACCTC  
CCCCTGAACCTGAAACATAAAATGAATGCAATTGTTGTTGTTAACTTGTT  
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CAAATAAAGCATTTTTTCACTGCATTCTAGTTGTGGTTTGTCCAAACTC  
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CCGATACTAGAGCGGCCGCCACCGCGGTGGAGCTCCAGCTTTTGTTCCTT  
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GTACCGGGCCCCCCTCGAGGTGACGGTATCGATAAGCTTGATATCTAT  
AACAAGAAAAATATATATAAAGTTATCACGTAAGTAGAACATGAAAT  
AACAATATAATTATCGTATGAGTTAAATCTTAAAGTCACGTAAAAGATA  
ATCATGCGTCATTTTGACTCACGCGGTCGTTATAGTTCAAATCAGTGAC  
ACTTACCGCATTGACAAGCACGCCTCACGGGAGCTCCAAGCGGCGACTGA  
GATGTCTTAATGCACAGCGACGGATTCGCGCTATTTAGAAAGAGAGAGC  
AATATTTCAAGAATGCATGCGTCAATTTTACGCAGACTATCTTTCTAGGG  
TTAATCTAGCTGCATCAGGATCATATCGTCCGGTCTTTTTTCCGGCTCAG

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Fig. 11a

TCATCGCCCCAAGCTGGCGCTATCTGGGCATCGGGGAGGAAGAAGCCCGTG  
CCTTTTCCCGCGAGGTTGAAGCGGCATGGAAAGAGTTTGCCGAGGATGAC  
TGCTGCTGCATTGACGTTGAGCGAAAACGCACGTTTACCATGATGATTCG  
GGAAGGTGTGGGATACATTGATGAGTTTGGACAAACCACAACCTAGAAATGC  
AGTGAAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTT  
GTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCA  
TTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGT  
AAAACCTCTACAAATGTGGTATGGCTGATTATGATCTAGAGTCGCGGCCG  
CTACAGGAACAGGTGGTGGCGGCCCTCGGTGCGCTCGTACTGCTCCACGA  
TGGTGTAGTCCTCGTTGTGGGAGGTGATGTCCAGCTTGGAGTCCACGTAG  
TAGTAGCCGGGCAGCTGCACGGGCTTCTTGCCATGTAGATGGACTTGAA  
CTCCACCAGGTAGTGGCCGCCGCTCCTTCAGCTTCAGGGCCTTGTGGATCT  
CGCCCTTCAGCACGCCGTCGCGGGGGTACAGGCGCTCGGTGGAGGCCTCC  
CAGCCCATGGTCTTCTTCTGCATTACGGGGCCGTCGGAGGGGAAGTTCAC  
GCCGATGAACCTTCACCTTGTAGATGAAGCAGCCGCTCTGCAGGGAGGAGT  
CTTGGGTACCGTCCACGCGCCGCTCCTCGAAGTTCATCACGCGCTCC  
CACTTGAAGCCCTCGGGGAAGGACAGCTTCTTGTAGTCGGGGATGTCCGC  
GGGGTGCTTCACGTACACCTTGGAGCCGTAAGTGGGGGGACAGGA  
TGTCCCAGGCGAAGGGCAGGGGGCCGCCCTTGGTCACCTTCAGCTTCACG  
GTGTTGTGGCCCTCGTAGGGGCGGCCCTCGCCCTCGCCCTCGATCTCGAA  
CTCGTGGCCGTTACGGTGGCCCTCCATGCGCACCTTGAAGCGCATGAACT  
CCTTGATGACGTTCTTGGAGGAGCGCACCATGGTGGCGACCGGTGGATCC  
CCGATCTGCATTTTGGATTATTCTGCGGGTCAAAATAGAGATGTGGAAAA  
TTAGTACGAAATCAAAATGAGTTTTCGTTGAAATTACAAAATATTGAACT  
AACTTCCTGGCTGGGGAATAAAAATGGGAACTTATTTATCGACGCCAAC  
TTTGTGTGAGAAACCCCTATTAACCTCTACGAATATTGGAACAAAGGAAA  
GCGAAGAAACAGGAACAAAGGTAGTTGAGAAACCTGTTCCGTTGCTCGTC  
ATCGTTTTCATAATGCGAGTGTGTGCATGTATATATACACAGCTGAAACG  
CATGCATACACATTATTTTGTGTGTATATGGTGACGTCAAACTACTAAG  
CAATAAGAAATTTTCCAGACGTGGCTTTTCGTTTCAAGCAACCTACTCTAT  
TTCAGCTAAAAATAAGTGGATTTTCGTTGGTAAAATACTTCAATTAAGCAA  
AGAACTAACTAACTAAATAACATGCACACAAATGCTCGAGTGCCTTCGTGA  
TTTCTCGAATTTTCAAAATGCGTCACTGCGAATTTTACAATTTGCCAATAA  
ATCTTGGCGAAAATCAACACGCAAGTTTTATTTATAGATTTGTTTGCCTT  
TTGATGCCAATTGATTGGGAAAAACAAGATGCGTGGCTGCCAATTTCTTAT  
TTTGTAATTACGTAGAGCGTTGAATAAAAAAATGGCCGAACAAAGAC  
CTTGAAATGCAGTTTTTCTTGAAATTACTCAACGCTTGTGTGCTCTTATT  
ACTAATTGGTAACAGCGAGTTAAAAACTTACGTTTCTTGTGACTTTTCGAG  
AATGTTCTTTAATTGTACTTTAATCACCAACAATTAAGTATAAATTTTT  
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CGTTGAAAATCACTAAAAAATACCGTAGTGTTCGTAACTTTAGTACAG  
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TAAAATTTTTTATGATTTCTGTGTATCACTTTTTTTTTTGTGTTTTTTCGTT  
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TTGAGACCTTTCTCGTACTGACTTGACCGGCTGAATGAGGATTTCTACCT  
AGACGACCTACTTCTTACCATGACATTGAATGCAATGCCACCTTTGATCT  
AACTTACAAAAGTCCAAGGCTTGTAGGATTGGTGTATTTTAGTTTGC  
TTTTGAAATAGCACTGTCTTCTTACCGCTATAATTTTGAACTCGCAG  
CTTGACTGGAAATTTAAAGTAATCTGTGTAGGTAAAGGTGTTTTAA  
AAGTGTGATGTGTGAGCGTTGCGGCAACGACTGCTATTTATGTATATAT  
TTTCAAACTTATTGTTTTTGAAGTGTTTTAAATGGAGCTATCTGGCAAC  
GCTGCGCATAATCTTACACAAGCTTTTCTTAATCCATTTTAAAGTGAAAT  
TTGTTTTTACTCTTTTCGGCAATAATGTTAAATCGCTTTAAGTGGGCTT  
ACATCTGGATAAGTAATGAAAACCTGCATATTATAATATTAACATATA  
ATCCACTGTGCTTTCCCGTGTGTGGCCATATACCTAAAAAAGTTTATTT

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Fig. 11b

TTCGAGAGCCCCGACGGTCACACTACGGTTCGGCGATTTTCGATTTTGG  
ACAGTACTGATTGCAAGCGCACCGAAAGCAAAATGGAGCTGGAGATTTTG  
AACGCGAAGAACAGCAAGCCGTACGGCAAGGTGAAGGTGCCCTCCGGCGC  
CACGCCCATCGGCGATCTGCGCGCCCTAATTACAAAGACCCCTGAAGCAGA  
CCCCACACGCGAATCGCCAGTCGCTTCGTCTGGAAGTGAAGGGCAAAAGC  
CTGAAAGATACGGACACATTGGAATCTCTGTGCTGCGTTCGGGCGACAA  
GATCGGGTACCGTTCGACTGCAGAATTCGAAGCTTGAGCTCGAGATCTGAC  
AATGTTTCAGTGCAGAGACTCGGCTACGCCTCGTGGACTTTGAAGTTGACC  
AACAAATGTTTATTCTTACCTCTAATAGTCCTCTGTGGCAAGGTCAAGATT  
CTGTTAGAAGCCAATGAAGAACCCTGGTTGTTCAATAACATTTTGTTCGTC  
TAATATTTTCACTACCGCTTGACGTTGGCTGCACCTTCATGTACCTCATCTA  
TAAACGCTTCTTCTGTATCGCTCTGGACGTCATCTTCACTTACGTGATCT  
GATATTTCACTGTGAGAATCCTCACCAACAAGCTCGTCATCGCTTTGCAG  
AAGAGCAGAGAGGATATGCTCATCGTCTAAAGAACTACCCATTTTATTAT  
ATATTAGTCACGATATCTATAACAAGAAAATATATATATAATAAGTTATC  
ACGTAAGTAGAACATGAAATAACAAATATAATTATCGTATGAGTTAAATCT  
TAAAAGTCACGTAAAAGATAATCATGCGTCATTTTGAAGTACGCGGTCGT  
TATAGTTCAAAATCAGTGACACTTACCGCAATTGACAAGCAGCCCTCACGG  
GAGCTCCAAGCGGCGACTGAGATGTCTAAATGCACAGCGACGGATTTCGC  
GCTATTTAGAAAGAGAGAGCAATATTTCAAGAAATGCATGCGTCAATTTTA  
CGCAGACTATCTTTCTAGGGTTAAAAAAGATTTGCGCTTTACTCGACCTA  
AACTTTAAACACGTTAACCATGCACGCCCTTAAACGGTGAAGTGTTCGTTT  
AGGCCACCTGGGATACAGTTTCGTGCGGCTTTTCCGGACACAGTTCCGG  
ATGGTCAGCCCGAAGCGCATCAGCAACCCGAACAATACCGGCGACAGCCG  
GAAGTGCCTGCGGCTGTCAGATTAAATGACAGCGGTGCGGCGCTGGGAT  
ATTACGTGAGCGAGGACGGGTATCCTGGCTGGATGCCGAGAAATGGACA  
TGGATACCCCGTGAGTTACCCGGCGGGCGCGCTTGGCGTAATCATGGTCA  
TAGCTGTTTCTGTGTGAAATTGTTATCCGCTCACAATTCCACACAACAT  
ACGAGCCGGAAGCATAAAGTGTAAGCCTGGGGTGCTAATGAGTGAGCT  
AACTCACATTAATTGCGTTGCGCTCACTGCCCCGCTTTCCAGTCGGGAAAC  
CTGTCGTGCCAGCTGCATTAATGAATCGGCCAACGCGCGGGGAGAGGCGG  
TTTGGCTATTGGGCGCTCTTCCGCTTCTCGCTCACTGACTCGCTGCGCT  
CGGTCGTTTCGGCTGCGGCGAGCGGTATCAGCTCACTCAAAGGCGGTAATA  
CGGTTATCCACAGAATCAGGGGATAACGCAGGAAAGAACATGTGAGCAAA  
AGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTT  
TCCATAGGCTCCGCCCCCTGACGAGCATCACAATAATCGACGCTCAAGT  
CAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCC  
TGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCCGTGCGCTTACCGGAT  
ACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCA  
CGCTGTAGGTATCTCAGTTCCGTTGAGTTCGTTCCGCTCCAAGCTGGGCTG  
TGTGCACGAACCCCGTTACGCCGACCGCTGCGCTTATCCGGTAACT  
ATCGTCTTGAGTCCAAACCCGTAAGACACGACTTATCGCCACTGGCAGCA  
GCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGA  
GTTCTTGAAGTGGTGGCTAACTACGGCTACACTAGAAGGACAGTATTTG  
GTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGC  
TCTTGATCCGGCAAAACAAACCCGCTGGTAGCGGTGGTTTTTTTGTGTTG  
CAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGA  
TCTTTTCTACGGGTCTGACGCTCAGTGAACGAAACTCACGTTAAGGG  
ATTTTGGTCATGAGATTATCAAAAAGGATCTTCACTAGATCCTTTTAA  
TTAAAAATGAAGTTTAAATCAATCTAAAGTATATATGAGTAAACTGGT  
CTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGATCTGT  
CTATTTTCGTTTCATCCATAGTTGCTGACTCCCCGTCGTGTAGATAACTAC  
GATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCAATGATACCGCGAG  
ACCCACGCTCACCGCTCCAGATTTATCAGCAATAAACCAGCCAGCCGGA  
AGGGCCGAGCGCAGAAGTGGTCTGCAACTTTATCCGCCTCCATCCAGTC  
TATTAATTTGTTGCCGGGAAGCTAGAGTAAGTAGTTCCGCGAGTTAATAGTT  
TGCGCAACGTTGTTGCCATTGCTACAGGCATCGTGGTGTACGCTCGTCG  
TTTGGTATGGCTTCATTACGCTCCGGTTCCTAACGATCAAGGCGAGTTAC

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Fig. 11c

ATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGCTCCTTCGGTCCTCCGA  
TCGTTGTCAGAAGTAAGTTGGCCGCAGTGTTATCACTCATGGTTATGGCA  
GCACTGCATAATTCTCTTACTGTCATGCCATCCGTAAGATGCTTTTCTGT  
GACTGGTGAGTACTCAACCAAGTCATTCTGAGAATAGTGTATGCGGCGAC  
CGAGTTGCTCTTGCCCGGCGTCAATACGGGATAATACCGCGCCACATAGC  
AGAACTTTAAAAGTGCTCATCATTGGAAAACGTTCTTCGGGGCGAAAAC  
CTCAAGGATCTTACCGCTGTTGAGATCCAGTTCGATGTAACCCACTCGTG  
CACCCAAC TGATCTTCAGCATCTTTTACTTTCACCAGCGTTTCTGGGTGA  
GCAAAAACAGGAAGGCAAAATGCCGCAAAAAGGGAATAAGGGCGACACG  
GAAATGTTGAATACTCATACTCTTCCTTTTTCAATATTATTGAAGCATTT  
ATCAGGGTTATTGTCTCATGAGCGGATACATATTTGAATGTATTTAGAAA  
AATAAACAAATAGGGGTTCCGCGCACATTTCCCCGAAAAGTGCCAC

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Fig. 12 Approximate DNA sequence for the vector shown in Fig. 8  
pBac{3xP3-FRT-ECFP-linotte-FRT3}

1  
GAGCTCGCCCGGGGATCTAATTCAATTAGAGACTAATTCAATTAGAGCTAATTCAATTAGGATCCAAGCTTAT  
CGATTTTGAACCCCTCGACCGCCGGAGTATAAATAGAGGCGCTTTCGTCTACGGAGCGACAATTCAATTCAAACA  
AGCAAAGTGAACACGTCGCTAAGCGAAAGCTAAGCAAATAAACAAGCGCAGCTGAACAAGCTAAACAATCGGG  
GTACCCGGGGATCTTGAAGTTCTTATTCCGAAGTTCTTATTCTCTAGAAAGTATAGGAAGTTTCAGAGCGCTTT  
TGAAGCTAGGCGGGTGGTGGCCATCCTGGTTCGAGCTGACGGTACGATCCACCGGTCGCCACCATGGTGAGCAAGGGCGAGGAGCTG  
TTCACCGGGGTGGTGGCCATCCTGGTTCGAGCTGGACGGCAGCTAAACGGGCCACAAGTTCAGCGTGTCCGGCG  
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CTTCAAGGAGGACGGCAACATCCTGGGGCACAAGCTGGAGTACAACCTACATCAGCCACAACGTCTATATCACC  
CGCGACAAGCAGAAGAACGGCATCAAGGCCAACTTCAAGATCCGCCACAACATCGAGGACGGCAGCGTGACGC  
TCGCCGACCACTACCAGCAGAACACCCCATCGGCGACGGCCCCGTGCTGCTGCCGACAACCACTACCTGAG  
CACCCAGTCCGCCCTGAGCAAAGACCCCAACGAGAAGCGCGATCACATGGTCTGCTGGAGTTCTGTACCGCC  
GCCGGGATCACTCTCGGCATGGACGAGCTGTACAAGTAAAGCGGCCGCGACTCTAGATCATAATCAGCCATAC  
CACATTTGTAGAGGTTTTACTTGCTTTAAAAAACCTCCACACCTCCCCCTGAACCTGAAACATAAAATGAAT  
GCAATTGTTGTTGTTAACTTGTATTATGTCAGCTTATAATGGTTACAAAATAAAGCAATAGCATCACAAATTTCA  
CAAATAAAGCATTTTTTTTCACTGCATTCTAGTTGTGGTTTGTCCAAACTCATCAATGTATCTTAAAGCTTATC  
GATACGCGTACGGCGCGCCAAAAGCTTCTGTCTCTCTTTCTGTAATAAACTAACGATTTATAAAGTATAAAAT  
GTCGTAATGTTTATTTTTGGCAACATGAGTTTAATTGCAAAATTGAATCAAACACAATAAAAAAAGTTAAAG  
GTTAAATCATTATATTACATCATTAAATTCGAATTCATTTGGGAAGTTTGTGGGTCTATTTTTTAACTTTAT  
ATGAATGTTTGTGTTAGTTAATTTAATAAAGGATATCGAACAGTATGCCAGTTTTGGTATTTAGCCAATTGGAG  
ATGTTTCGATGAGATGTTTGAACCTGCAACCGAGTTCGAGGTTCCAAACACGACTGTTATACGGGTTCCAGCCTTC  
AAGTTCCTACAGAACAAGTCCACGAGCGCCACACAGTCCACACTCCACTCCGCTCGGCGTGGAAG  
CCATTCGCTTCGTGGCGAAGTGTGTTGTTTATCCAGTTGACAGTTTGTGGAAAATCGTCACGGTGAGCGGATCA  
AACGCGGAAAACGAACGCGGACGAACGGCGAGAAAAGCGAGGAAAACGGGTGCAGAGACAGAGACTGATTGG  
GAAATATGTGCGCCTGAGTTTTCCCGGCCAGAAGGCAAAGTGCCAAATGCTCTGACAAAATAATTCCTGTAATA  
ATCAGCGCGATTGAAATCAACGCGACGCTCGTAAATGCAAATGCAGCGCAAAAAGTGAACAGCAGTGACGC  
GGAAATTAATCGTTTTAGCGAGTGCCAAACGGGAAATAGAAAATCGGCAGAGTAGCCGAACCTGCAGTTAAAA  
CTATCTCTTCTCTTATTGCGACTAAACAACCGGCGGATTAATCGAATCCGAAAGATGGCCCCCACTTGCTA  
ACAATCGGATTACTTTTGACCTGATCGCCAGCGGTACGGCCCATCTCAATATTTTCTCAACTTGCACGAGG  
TGCTGCGCCTAATCGGTAAGTAATCGTGTGTTGATTTTCGCTGCCTTTTGGCTTTTCAATTAAGTGGGCAATTA  
TTTGCCACTTTGTGTGCGTTTCGTTTCGACTTTTAAATCAAATTTGATTTATGCCAAGCCGGGATTTTGTCTCCTG  
GGCAAACGAATGCGACTTGCTGGGATTATTTACTCTTTTGGCTAAATAATATATATGCCTTTTAAATGTTTCTA  
GCCTCGGAGCTACATATAAAGTAGTATTGTCCCTCCTTCAATTGGCCAGCTCACCAGAAAACAAGAAAACATT  
CTATTTGTCTAGCATGATTTCTGTCTTTGATTTAATTGTTTCGTTAGACTTATCTAGATAAATAGAAATGC  
TAAAGCGATTTAAATTTGTATTTCTTTGCGTTAAATTAATTCGATTGGCAAGTGGATTCTCTCTAGATAAG  
TAATCCCTCTATAATCAAAGTTTTTATTTAAAAAATCATATTTTTTTCATAGTTTATCCAATTTAAAAACAATC  
AAAACAATTTTAGATATATTTTATAAACGCTCTTCAAAGAAAATAAATAGTAAATCATGTAGTCAAAAAATG  
ACACAAAATGAGTATTTAAATATTTAGTTTAGTTTAGTTTATATTATTTTAGCCTAACTATTTTCCATA  
GAAGAATACTACTCTAATAAGCTTGGGGTACCCGGGGATCTTGAAGTTCCTATTCCGAAGTTCCTATTCTTCA  
AATAGTATAGGAACCTTCAGATCTGACAATGTTTCAGTGACAGACTCGGCTACGCCTCGTGGACTTTGAAGTTG  
ACCAACAATGTTTATTCTTACCTCTAATAGTCCCTCTGTGGCAAGGTCAAGATTCTGTTAGAAGCCAATGAAGA  
ACCTGGTTGTTCAATAACATTTTGTTCGTCTAATATTTCACTACCGCTTGACGTTGGCTGCACCTCATGTACC  
TCATCTATAAACGCTTCTTCTGTATCGCTCTGGACGTCATCTTCACTTACGTGATCTGATATTTCACTGTACG  
AATCCTCACCAACAAGCTCGTCATCGCTTTCGAGAAGAGCAGAGAGGATATGCTCATCGTCTAAAGAACTACC  
CATTTTATTATATATTAGTCACGATATCTATAACAAGAAAATATATATATAATAAGTTATCACGTAAGTAGAA  
CATGAAATAACAATATAATTATCGTATGAGTTAAATCTTAAAGTCAAGTAAAGATAATCATGCGTCATTTT  
GACTCAGCGGTGTTATAGTTCAAAATCAGTGACACTTACCGCATTGACAAGCACGCTCACGGGAGCTCCA  
AGCGGCGACTGAGATGTCTTAAATGCACAGCGGATTCGCGCTATTTAGAAAAGAGAGCAATATTTCAAG  
AATGCATGCGTCAATTTTACGACAGCTATCTTTCTAGGGTTAAAAAAGATTGCGCTTTACTCGACCTAACT  
TTAAACACGTCATAGAATCTTCTGTTTGAACAAAACACATTTGTGGCCAAGCTGTGTGACGCGACGCGCTAA  
AGAATGGCAAACCAAGTCGCGGAGCGTCACTCTAGAGGATCCCCGGGTACCGAGCTCGAATTCGAATCAT  
GGTCATAGCTGTTTTCTGTGTGAAATGTTATCCGCTCACAATTCACACACATACGAGCCGGAAGCATAAA  
GTGTAAAGCCTGGGGTGCCTAATGAGTGAGCTAACTCACATTAATTGCGTTGCGCTCACTGCCCGCTTTCCAG  
TCGGGAAACCTGTGTCGACGCTGCATTAATGAATCGGCCAACGCGCGGGAGAGGCGGTTTGGCTATTGGGC

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Fig. 12 a

GCTCTTCCGCTTCTCTCGCTCACTGACTCGCTGCGCTCGGTTCGGTTCGGCTGCGGCGAGCGGTATCAGCTCACTC  
AAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAACGCAGGAAAGAACATGTGAGCAAAAGGCCAGCAA  
AAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACA  
AAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCCCTGGAAG  
CTCCCTCGTGCGCTCTCTGTTCGGACCCCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGC  
GTGGCGCTTTCTCAATGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCTGCTCCAAGCTGGGCTGTG  
TGCACGAACCCCCCGTTTCAGCCCGACCGCTGCGCCTTATCCGGTAACCTATCGTCTTGAGTCCAACCCGGTAAG  
ACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACA  
GAGTCTTGAAAGTGGTGGCCTAACTACGGCTACACTAGAAGGACAGTATTTGGTATCTGCGCTCTGCTGAAGC  
CAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTT  
TGTTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCT  
GACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTTGGTTCATGAGATTATCAAAAAGGATCTTCACCTAGA  
TCCTTTTAAATTAATAATGAAGTTTTAAATCAATCTAAAGTATATATGAGTAAACTTGGTCTGACAGTTTACCA  
ATGCTTAATCAGTGAGGCACCTATCTCAGCGATCTGTCTATTTTCGTTTCATCCATAGTTGCCTGACTCCCGTC  
GTGTAGATAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCAATGATACCGCGAGACCCACGCT  
CACCGGCTCCAGATTTATCAGCAATAAACAGCCAGCCGGAAGGGCCGAGCGCAGAAAGTGGTCTGCAACTTT  
ATCCGCTCCATCCAGTCTATTAATTGTTGCCGGGAAGCTAGAGTAAGTAGTTGCCAGTTAATAGTTTGGCG  
AAGTTTGGTTCGCTATGCTACAGGCATCGTGGTGTACGCTCGTCTGTTGGTATGGCTTCATTCAGCTCCGGTT  
CCCAACGATCAAGGCGAGTTACATGATCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCCCTCCGAT  
CGTTGTGCAAGTAAGTTGGCCGCGAGTTTATCACTCATGTTTATGGCAGCACTGCATAATTCTCTTACTGTG  
ATGCCATCCGTAAGATGCTTTTCTGTGACTGGTGAGTACTCAACCAAGTCATTCTGAGAAATAGTGATGCGGC  
GACCGAGTTGCTCTTGGCCGCGTCAATACGGGATAATACCGCGCCACATAGCAGAACTTTAAAGTGCTCAT  
CATTGGAAAACGTTCTTCGGGGCGAAAACCTCTCAAGGATCTTACCGCTGTTGAGATCCAGTTTCGATGTAACCC  
ACTCGTGACCCAACTGATCTTACGATCTTTTACTTTTACCAGCGTTTCTGGGTGAGCAAAAACAGGAAGGC  
AAAATGCCGCAAAAAGGGAATAAGGGCGACACGGAATGTTGAATACTCATACTCTTCTTTTCAATATTA  
TTGAAGCATTTATCAGGGTTATTGTCTCATGAGCGGATACATATTTGAATGTATTTAGAAAAATAAACAAATA  
GGGTTCCGCGCATTTCCCCGAAAAGTGCCACCTGACGCTCAAGAAACCATTATTATCATGACATTAACTT  
ATAAAAATAGGCGTATTCACGAGGCCCTTTCGTCTCGCGCGTTTCGGTGATGACGGTGAAAACCTCTGACACAT  
GCAGCTCCCGGAGACGGTCACAGCTTGTCTGTAAGCGGATGCCGGGAGCAGACAAGCCCGTCAGGGCGCGTCA  
GCGGGTGTGGCGGGTGTGCGGGCTGGCTTAACATATGCGGCATCAGAGCAGATTGTACTGAGAGTGCAACCAT  
TGCGGTGTGAAATACCGCACAGATGCGTAAGGAGAAAAATACCGCATCAGGCGCCATTTCGCCATTGAGCTGCG  
CAACTGTTGGGAAGGGCGATCGGTGCGGGCTCTTCGCTATTACGCCAGCTGGCGAAAGGGGGATGTGCTGCA  
AGGCGATTAAGTTGGGTAACGCCAGGGTTTCCAGTCACGACGTTGTAAAACGACGGCCAGTGCCAAGCTTT  
GTTTAAATATAACAAAATTGTGATCCCAAAAATGAAGTGGGGCAAAATCAAATAATTAATAGTGTCGTA  
ACTTGTGGTCTTCACTTTTTGAGGAACACGTTGGACGGCAAAATCCGTGACTATAACACAAGTTGATTTAAT  
AATTTTAGCCAACACGTCGGGCTGCGTGTTTTTTGCCGACGCGTCTGTGTACAGCTTGATTAAGTGGTCTGATT  
AACTGTTGAAATAATTTAATTTTTGGTCTCTTCTTAAATCTGTGATGAAATTTTTTAAATAACTTTAAATT  
CTTCATTGGTAAAAATGCCACGTTTTTGCAACTGTGAGGGTCTAATATGAGGTCAAATCAGTAGGAGTTTT  
ATCCAAAAAAGAAAACATGATTACGTCTGTACACGAACGCGTATTAAACGAGAGTGCAAAGTATAAGAGGGTT  
AAAAAATATATTTTACGCACCATATACGCATCGGGTTGATATCGTTAATATGGATCAATTTGAACAGTTGATT  
AACGTGTCTCTGCTCAAGTCTTTGATCAAAACGCAAATCGACGAAAATGTGTGCGGACAAATATCAAGTCGATGA  
GCGAAAACTAAAAAGGCTAGAATACGACAATCTCACAGACAGCGTTGAGATATACGGTATTCACGACAGCAG  
GCTGAATAATAAAAAAATTAGAACTATTATTTAACCTAGAAAGATAATCATATTGTGACGTACGTTAAAGA  
TAATCATGCGTAAATTTGACGCATGTGTTTTATCGGTCTGTATATCGAGGTTTATTTATTAATTTGAATAGAT  
ATTAAGTTTTATTATATTACACTTACATACTAATAATAAATTCAACAAACAATTTATTTATGTTTTATTATT  
TATTAATAAAAAAACAACCTCAAAATTTCTTATAAAGTAACAAAACCTTTTAAACATTCTCTCTTTTACAA  
AAATAAACTTATTTTGTACTTTAAAAACAGTCATGTTGTATTATAAAAATAAGTAATTAGCTTAACTTATACAT  
AATAGAAAACAAATTATACCTTATTAGTCAGTCAGAAACAACCTTTGGCACATATCAATATTATGCTCTCGACAAA  
TAACTTTTTTGCATTTTTTGCACGATGCATTTGCCTTTTCGCTTATTTTAGAGGGGACAGTACAGTAAGT  
ACGTTTTTTCATTACTGGCTCTTCAGTACTGTCTGTATGTACCAGGCACTTCATTTGGCAAAAATATTAGAG  
ATATTATCGCGCAAAATATCTTCAAAGTAGGAGCTTCTAAACGCTTACGCATAAACGATGACGTCAGGCTCA  
TGTAAGGTTTCTCATAAATTTTTTGGCACTTTGGACCTTTTCTCCCTTGCTACTGACATTATGGCTGTATAT  
AATAAAAGAATTTATGCAGGCAATGTTTATCATTTCCGTACAATAATGCCATAGGCCACCTATTCGTCTTCTTA  
CTGCAGGTCATCAGAACACATTTGGTCTAGCGTGTCCACTCCGCTTTAGTTTGATTATAATACATAACCA  
TTTGCGGTTTACCGGTACTTTGTTGATAGAACATCTCATCACAAGATGATAATAAGTATACCATCTTAGC  
TGGCTTCGGTTTATATGAGACGAGAGTAAGGGGTCGCTCAAAACAAAACATCGATGTTCCCACTGGCCTGGAG  
CGACTGTTTTTCAGTACTTCCGGTATCTCGCGTTTGTGTTGATCGCACGGTTCACCAATGGTTAATTC



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Fig. 13 Approximate DNA sequence for the vector shown in Fig. 10  
pSL-FRT-EYFP-pBacR-3xP3-DsRed-linotte-FRT3

CGTCGCTAAGCGAAAGCTAAGCAAATAAACAAGCGCAGCTGAACAAGCTAAACAATCGGGGTACCCGGGGATCTT  
GAAGTTCCTATTCCGAAGTTCCTATTCTCTAGAAAGTATAGGAACCTTCAGAGCGCTTTTGAAGCTAGGCGGCCCT  
AGAGTCGACGGTACGATCCACCGGTCGCCACCATGGTGAGCAAGGCGAGGAGCTGTTACCCGGGGTGGTGCCCA  
TCCTGGTCGAGCTGGACGGCGACGTAAACGGCCACAAGTTCAGCGTGTCCGGCGAGGGCGAGGGCGATGCCACCT  
ACGGCAAGCTGACCCCTGAAGTTCATCTGCACCACCGGCAAGCTGCCCGTGCCCTGGCCCCACCTCGTGACCACCT  
TCGGCTACGGCCTGCAGTGCTTCGCCCGCTACCCCGACCACATGAAGCAGCAGCACTTCTTCAAGTCCGCCATGC  
CCGAAGGCTACGTCCAGGAGCGCACCATCTTCTTCAAGGACGACGGCAACTACAAGACCCGCGCCGAGGTGAAGT  
TCGAGGGCGACACCCTGGTGAACCGCATCGAGCTGAAGGGCATCGACTTCAAGGAGGACGGCAACATCCTGGGGC  
ACAAGCTGGAGTACAATAACAACAGCCACAACGTCTATATCATGGCCGACAAGCAGAAGAACGGCATCAAGGTGA  
ACTTCAAGATCCGCCACAACATCGAGGACGGCAGCGTGCAGCTCGCCGACCACTACCAGCAGAACACCCCCATCG  
GCGACGGCCCCGTGCTGCTGCCGACAACCACTACCTGAGCTACCAGTCCGCCCTGAGCAAAGACCCCAACGAGA  
AGCGCGATCACATGGTCTGCTGGAGTTCGTGACCGCCGCGGGATCACTCTCGGCATGGACGAGCTGTACAAGT  
AAAGCGGCCGCGACTCTAGATCATAATCAGCCATACCCACATTTGTAGAGGTTTTACTTGCTTTAAAAACCTCCC  
ACACCTCCCCCTGAACCTGAAACATAAAATGAATGCAATTGTTGTTGTTAACTTGTTTTATTGAGCTTATAATGG  
TTACAAATAAAGCAATAGCATCACAAATTTACAAATAAAGCATTTTTTTTCACTGCACTTCTAGTTGTGTTTGTG  
CAAATCATCAATGTATCAAGCTTATCGATACGCGTACGGCGCGCCTAGGCGCGCCGATCTCGCGCGCCAAAAGC  
TTCTGTCTCTCTTTCTGTAATAAACTAACGATTTATAAAGTATAAAATGTCGTAATGTTTATTTTGGCAACATG  
AGTTTAATTCGAAATTGAATCAACACAATAAAAAAAGTTAAAAAGGTTAAATCATTATATTACATCATTAAAT  
CGAATTATCGTTAATATGGATCAATTTGAACAGTTGATTAACGTGTCTCTGCTCAAGTCTTTGATCAAAACGCAA  
ATCGACGAAAATGTTGTCGGACAATATCAAGTCGATGAGCGAAAACTAAAAAGGCTAGAATACGACAATCTCACA  
GACAGCGTTGAGATATACGGTATTCAGCAGCAGGCTGAATAATAAAAAATTAGAACTATTATTTAACCTTA  
GAAAGATAATCATATTGTGACGTACGTTAAAGATAATCATGCGTAAATTTGACGCATGTGTTTTATCGGTCTGTA  
TATCGAGGTTTTATTTATTAATTTGAATAGATATTAAGTTTTTATTATTTTACACTTACATACTAATAATAAATTC  
AACAAACAATTTATTTATGTTTTATTTATTTATTAATAAAAAAACAATACTCAAAATTTCTTCTATAAAGTACAA  
AACTTTTAAACATTCTCTCTTTTACAAAAATAAACTTATTTTGTACTTTAAAAACAGTCATGTTGTATTATAAAA  
TAAGTAATTAGCTTAACTTATACATAATAGAAACAAATTATACTTATTAGTCAGTCAGAAACAACCTTTGGCACAT  
ATCAATATTATGCTCTCGACAATAAATTTTTTGCATTTTTTGCACGATGCATTTGCCTTTTCGCCCTTATTTTAGA  
GGGCGAGTAAGTACAGTAAGTACGTTTTTTTCTTACTGGCTCTTCAGTACTGTCACTCTGATGTACCAGGCACCTC  
ATTTGGCAAAATATTAGAGATATTATCGCGCAAATATCTCTTCAAAGTAGGAGCTTCTAAACGCTTACGCATAAA  
CGATGACGTCAGGCTCATGTAAAGGTTTTCTCAAAATTTTTTGGCACTTTGGACCTTTTCTCCCTTGCTACTGAC  
ATTATGGCTGTATATAATAAAGAATTTATGCAGGCAATGTTTATCATTCGTTACAATAATGCCATAGGCCACCT  
ATTCGTCTTCTACTGCAGGTCATCACAGAACACATTTGGTCTAGCGTGTCCACTCCGCTTTAGTTTGATTATA  
ATACATAACCAATTTGCGGTTTTACCGGTACTTTCTGTTGATAGAAGCATCCTCATCACAAAGATGATAAAGTATAC  
CATCTTAGCTGGCTTCGGTTTTATATGAGACGAGAGTAAGGGGTCCGTCAAAACAAAACATCGATGTTCCCACTGG  
CCTGGAGCGACTGTTTTTCTAGTACTTCCGGTATCTCGCGTTTTGTTTGATCGCACGGTTCCCACAATGGTAATTCG  
AGCTCGCCCGGGGATCTAATTCAATTAGAGACTAATTCAATTAGAGCTAATTCAATTAGGATCCAAGCTTATCGA  
TTTTCGAACCCCTCGACCGCCGAGTATAAATAGAGGCGCTTCGTCTACGGAGCGACAATTCAATTCAAACAAGCAA  
AGTGAACACGCTCGCTAAGCGAAAGCTAAGCAATAAACAAGCGCAGCTGAACAAGCTAAACAATCGGGGTACCGC  
TAGAGTCGACGGTACCGCGGGCGGATCCACCGGTCGCCACCATGGTGCCTCTCTCAAGAACGTCATCAAGG  
AGTTCATGCGCTTCAAGGTGCGCATGGAGGGCACCCTGAAGGCGGACGAGTTCGAGATCGAGGGCGAGGGCGAGG  
GCCGCCCCCTACGAGGGCCACAACACCGTGAAGCTGAAGGTGACCAAGGGCGGCCCCCTGCCCTTCGCTGGGACA  
TCCTGTCCCCCAGTTCAGTACGGCTCCAAGGTGTACGTGAAGCACCCCGCGACATCCCCGACTACAAGAAGC  
TGTCCTTCCCCGAGGGCTTCAAGTGGGAGCGCGTGATGAACCTCGAGGACGGCGGCGTGGTGACCGTGACCCAGG  
ACTCCTCCCTGCAGGACGGCTGCTTCACTTACAAGGTGAAGTTTATCGGCGTGAACCTTCCCTCCGACGGCCCCG  
TAATGCAGAAGAAGACCATGGGCTGGGAGGCCCTCCACCGAGCGCCTGTACCCCGCGACGGCGTGTGAAGGGCG  
AGATCCACAAGGCCCTGAAGCTGAAGGACGGCGGCCACTACCTGGTGGAGTTCAAGTCCATCTACATGGCCAAGA  
AGCCCGTGCAGCTGCCCCGGCTACTACTCGTGACTCCAAGCTGGACATCACCTCCCAACGAGGACTACACCA  
TCGTGGAGCAGTACGAGCGCACCGGAGGGCGCCACCCTGTTCTGTAGCGGCCGCGACTCTAGATCATAATCA  
GCCATACCACATTTGTAGAGGTTTTACTTGCTTTAAAAAACCTCCACACCTCCCCCTGAACCTGAAACATAAAAA  
TGAATGCAATTGTTGTTGTTAACTTGTTTATTGCAGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAAT  
TCACAAATAAAGCATTTTTTTCACTGCACTTCTAGTTGTGGTTTGTCCAAACTCATCAATGTATCAAGCTTATCGA  
TACGCGTACGGCGCAATTCATTTGGGAAGTTTGTGGGTCTATTTTTTAACTTTATATGAATGTTTGTGTTAGTT  
AATTTAATAAAGGATATCGAACAGTATGCCAGTTTGGTATTTAGCCAATTGGAGATGTTTCGATGAGATGTTTCGA  
ACTGCAACCGAGTTCGAGGTTCCAACACGACTGTTATACGGGTTCCAGCCTTCAAGTTCTACAGAACAAGTCCAC  
GAGCGCCACACAGTCCACAGTCCACACTCCACTCCGCTCGGCGTGGAAGCCATTGCTTTCGTGGCGAAGTGTG  
TGTTTATCCAGTTGACAGTTTGTGGAAAATCGTCACGGTGAGCGGATCAAACGCGGAAAACGAACGCGGACGAAC  
GGCGAGAAAAGCGAGGAAAACGGGTGCAGAGACAGAGCTGATTGGGAAATATGTGCGCCTGAGTTTTCCCGGC  
CAGAAGGCAAAGTGCCAAATGCTCTGACAAATAATTCCTGTAATAATCAGCGCGATTGAAATCAACGCGACGCTC

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Fig. 13a

GTAAATTGCAATGCAGCGCAAAAAGTGAACAGCAGTGCAGCGGAAATTAAATCGTTTTAGCGAGTGCCAAACG  
GGAAATAGAAAATCGGCAGAGTAGCCGAACCTGCAGTTAAACTATCTCTTCTCTTATTGCGACTAAACAACCGG  
CGGATTAATCGAATCCGAAAGATGGCCCCCACTTGCTAACAATCGGATTACTTTTGACCTGATCGCCAGCGGT  
CAGGCCCATCTCAATATTTTCTCAACTTGACAGAGGTGCTGCGCCTAATCGGTAAGTAATCGTGTTGATTTTCG  
CCTGCCTTTTGGCTTTTCAATTAACCTGGGCAATTATTTGCCACTTTGTGTGCGTTCTGTTGACTTTAAATCAAAT  
TTGATTTATGCCAAGCCGGGATTTTGTCTCTCTGGGCAAACGAATGCGACTTGCTGGGATTATTTACTCTTTTTGC  
GTAAATAATATATGCCTTTTAATTGTTTCTAGCCTCGGAGCTACATATAAAGTAGTATTGTCCCTCCTTCAATTG  
GCCAGCTCACCGAGAAACAAGAAAACATTTCTATTTGTCTAGCATGATTTCTGTCTTTGATTAAATTGTTTCGT  
TAGACTTATCTAGATAAAATAGAAAATGCTAAAGCGATTAAATCAAAAGTTTTTATTTAAAAAATCATATTTTTCATA  
GCAAGTGGATTCTCTAGATAAGTAATCCCTCTATAATCAAAAGTTTTTATTTAAAAAATCATATTTTTCATA  
GTTTATCCAATTTAAAAACAATACAAAACAATTTTAGATATATTTTATAAACGTTCTTCAAAGAAAAATAAGTA  
AAATCATGTAGTCAAAAAATGACACCAAAATGAGTATTTAAATATTTAGTTTAGTTTAGTTTATATTATTATT  
AGCCTAACTATTTTCCATAGAAGAATACTACTCTAATAAGCTTGGGGTACCCGGGGATCTTGAAGTTCCTATTCC  
GAAGTTCCTATTCTTCAAATAGTATAGGAACCTCAGATCCGACCGCGGACATGTACAGAGCTCGAGAAGTACTAG  
TGGCCACGTGGGCCGTGCACCTTAAGCTTGGCACTGGCCGTCTGTTTTACAACGTCGTGACTGGGAAAACCTTGGC  
GTTACCCAACCTTAATCGCCTTGCGCAGCTGAATGGCGAATGGCGCCTGATGCGGTATTTTCTCTTACGCATCTGTGC  
CGCCCTTCCCAACAGTTGCGCAGCCTGAATGGCGAATGGCGCCTGATGCGGTATTTTCTCTTACGCATCTGTGC  
GGTATTTACACCGCATACGTCAAAGCAACCATAGTACGCGCCTGTAGCGGCGCATTAAAGCGCGGCGGGTGTGG  
TGGTTACGCGCAGCGTGACCGCTACACTTGCCAGCGCCTAGCGCCGCTCCTTTTCGTTTCTTCCCTTCTCTTTC  
TCGCCACGTTTCGCGGCTTTCCCGCTCAAGCTCTAAATCGGGGGCTCCCTTTAGGGTTCCGATTTAGTGCTTTAC  
GGCACCTCGACCCCAAAAACTTGATTTGGGTGATGGTTCACGTAGTGGGCCATCGCCCTGATAGAGGTTTTC  
GCCCTTTGACGTTGGAGTCCACGTTCTTTAATAGTGGACTCTGTTCCAAACTGGAACAACACTCAACCCTATCT  
CGGGCTATTCTTTTGATTTATAAGGGATTTTGCCGATTTTCGGCTATTGGTTAAAAAATGAGCTGATTTAACAAA  
AATTTAACGCGAATTTTAAACAAAATATTAACGTTTACAATTTTATGGTGCACCTCTCAGTACAATCTGCTCTGATG  
CCGATAGTTAAGCCAGCCCCGACACCCGCCAACACCCGCTGACGCGCCCTGACGGGCTTGTCTGCTCCCGGCAT  
CCGCTTACAGACAAGCTGTGACCGTCTCGGGAGCTGCATGTGTGAGAGTTTTACCGTCTACACCGAAACGCG  
CGAGACGAAAGGGCCTCGTGATACGCCTATTTTATAGTTAATGTATGATAAATAATGGTTTCTTAGACGTGAG  
GTGGCACTTTTTCGGGAAATGTGCGCGGAACCCCTATTTGTTTATTTTCTAAATACATTCAAATATGTATCCGC  
TCATGAGACAATAACCCCTGATAAATGCTTCAATAATATTGAAAAAGGAAGATATGAGTATTCAACATTTCCGTG  
TCGCCCTTATTCCCTTTTTTTCGCGCATTTTGCCTTCTGTTTTTGTCTACCCAGAAACGCTGGTGAAAGTAAAG  
ATGCTGAAGATCAGTTGGGTGCACGAGTGGGTACATCGAAGTGGATCTCAACAGCGGTAAGATCCTTGAGAGTT  
TTCGCCCCGAAGAAGCTTTTCCAATGATGAGCACTTTTAAAGTCTGCTATGTGGCGCGGTATTATCCCGTATTG  
ACGCCGGGCAAGAGCAACTCGGTGCGCGCATACACTATTCTCAGAATGACTTGGTTGAGTACTACCAGTCACAG  
AAAAGCATCTTACGATGGCATGACAGTAAGAGAATTATGAGTGTGCCATAACCATGAGTGATAACACTGCGG  
CCAACCTTACTTCTGACAACGATCGGAGGACCGAAGGAGCTAACCGCTTTTTTGCACAACATGGGGGATCATGTAA  
CTCGCCTTGATCGTTGGGAACCGGAGCTGAATGAAGCATAACCAACGACGAGCGTGACACCACGATGCCTGTAG  
CAATGGCAACAACGTTGCGCAAACCTATTAAGTGGCGAAGTACTTACTCTAGCTTCCCGGCAACAATTAATAGACT  
GGATGGAGGCGGATAAAGTTGACAGGACCACTTCTGCGCTCGGCCCTTCCGGCTGGCTGTTTATTGTGATAAAT  
CTGGAGCCGGTGAGCGTGGGTCTCGCGGTATCATTGCAGCACTGGGGCCAGATGGTAAGCCCTCCCGTATCGTAG  
TTATCTACACGACGGGGAGTCAGGCAACTATGGATGAACGAAATAGACAGATCGCTGAGATAGGTGCCTCACTGA  
TTAAGCATTTGGTAACGTGTGAGACCAAGTTTACTCATATATACTTTAGATTGATTTAAACCTTCATTTTAAATTA  
AAAGGATCTAGGTGAAGATCCTTTTTGATAATCTCATGACCAAAATCCCTTAAACGTGAGTTTTCGTTCCACTGAG  
CGTCAGACCCCGTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTTCTGCGCGTAATCTGCTGCTTGCAAA  
CAAAAAAACCACCGCTACCAGCGGTGGTTTGTTCGCGGATCAAGAGCTACCAACTCTTTTCCGAAGGTAAGT  
GCTTCAGCAGAGCGCAGATACCAATACTGTTCTTCTAGTGTAGCGGTAGTTAGGCCACCACTTCAAGAACTCTG  
TAGCACCGCCTACATACCTCGCTCTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGCGGATAAGTCGTGTCTTA  
CCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTGGGCTGAACGGGGGTTCTGTGCACACAGC  
CCAGCTTGGAGCGAAGCAGCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCG  
AAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCGAGGTCGGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGG  
GAAACGCCTGGTATCTTTATAGTCTGTGCGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGT  
CAGGGGGGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCTTTTTACGGTTCCTGGCCTTTTGCTGGCCTTTTG  
CTCATATGTTCTTTCTGCGTTATCCCTGATTCTGTGGATAACCGTATTACCGCTTTGAGTGAGCTGATACCG  
CTCGCCGAGCCGAACGAGCGCAGCGAGTCAAGTCAAGTGGAGGAGGTTTCCCGACTGGAAAGCGGGCAGTGAGC  
CTCTCCCCGCGCGTTGGCCGATTCTAATGACGCTGGCAGCAGGTTTCCCGACTGGAAAGCGGGCAGTGAGC  
GCAACGCAATTAATGTGAGTTAGCTCACTCATTAGGCACCCAGGCTTTACACTTTATGCTTCCGGCTCGTATGT  
TGTGTGGAATTGTGAGCGGATAACAATTTACACAGGAAACAGCTATGACCATGATTACGAATTGATCCGAAGCTT  
ATCGATTTTGAACCCCTCGACCGCGGAGTATAAATAGAGGCGCTTCGTCTACGGAGCGACAATTCAATTCAAACA  
AGCAAAGTGAACA

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